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Combinations of Disabilities

In this 19th edition of the CCSD's *Disability Research Information Sheets*, we provide information from the 2001 Participation and Activity Limitation Survey (PALS)[1] concerning combinations of disability types. The 2001 PALS was designed to identify 11 different types of disabilities among adults: mobility, agility, pain, seeing, hearing, speaking, memory psychological, learning, developmental, and unknown.[2] The vast majority of adults with disabilities (82%) have more than one type of disability; in fact, 36% have four or more types. Certain combinations are quite prevalent, while others present unique challenges and are more prevalent than is commonly believed.

In this *Information Sheet*, we examine the combination of both hearing and seeing disabilities, and combined disabilities for agility/mobility and pain. We also provide basic employment rates by disability types (including combinations).

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[1] The Adult PALS is a post-censal survey, that is, a survey that uses a Census question to identify the target population of persons with disabilities. It was conducted in 10 provinces, but excludes the Yukon, Northwest Territories, and Nunavut. It contains rich disability-specific information.

[2] The "unknown" disability type does not occur in combination. This category is reserved for those who report some type of activity limitation that is not captured by the other questions specifically designed to identify the other 10 disability types. Less than 3% of all persons with disabilities (85,410 individuals) fall into this category.

Hearing and Seeing Disabilities Combined

Last year, in our *Information Sheet No. 15*, we presented data from the Canadian Community Health Survey (CCHS) regarding persons with both vision and hearing loss. Numbers generated from the CCHS data were quite a bit higher than numbers obtained from other studies which use registry data and information from program caseloads. As a result, we have received a great deal of feedback, much of it from individuals who provide supports and services to persons with vision and hearing loss, and many of whom believe the number of individuals affected is indeed much higher than has generally been thought.

In a recent report prepared for the Canadian National Society of the Deaf-Blind (CNSDB), 3,306 individuals were identified as being deaf/blind. Researchers identified individuals with the help of service organizations, disability groups, seniors' residences, ophthalmologists, regional health authorities, nursing associations, personal care homes and associations, government departments, and directors of disability service offices at universities and colleges, as well as through other networks. As noted in that report, "Most of the regional researchers believed that their reported official numbers under-estimated the full extent of those who are Deaf/Blind in this country."[3]

In DRIP No. 15, using data from the CCHS, we identified 69,800 individuals who had some degree of both vision and hearing loss. Of these, however, only 15,500 had a serious or total loss of both senses. Because the CCHS is a national health survey conducted in all provinces and territories with a sample size of 131,535 individuals aged 12 and older, it provides a representative sample of the nation. Numbers obtained for previous studies of this population have had to identify individuals by seeking them out through organizations with which they are most likely to have had contact. This latter method can underestimate the true incidence of the deaf/blind disability combination because many individuals fail to be "picked up" through this process. The very nature of this disability combination poses a huge barrier with respect to communication, and this can lead to isolation from the outside world and from the very organizations that might provide assistance.

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[3] Study prepared by Colleen Watters and Michelle Owen, Canadian Centre on Disability Studies, and Stan Monroe, Project Coordinator. *A Study of Deaf-Blind Demographics and Services in Canada.* Toronto: CNSDB, 2005, p. 44. www.disabilitystudies.ca/research.htm

In this current DRIP issue, we take another look at deaf/blind numbers, this time using the PALS which permits better precision in identifying individuals with some type of vision and hearing loss, as well as those with the most serious level or total loss of both senses. Questions used in the PALS are superior to those in the CCHS for this purpose in that they include more questions and permit respondents to identify more categories of loss.[4] Differences between numbers obtained using the PALS and the CCHS are easily explained by differences in the screening questions used on the two surveys. Essentially, both surveys strongly indicate that the size of the deaf/blind population is much larger than was previously believed.

According to the 2001 PALS, about 17% of the 3.4 million adult Canadians with disabilities had some degree of difficulty with their vision, despite the use of glasses or contact lenses. This means that over half a million adults (594,350) had some degree of vision loss that was not corrected by glasses or contact lenses. As well, about 32% of disabled adults had some degree of difficulty with hearing. This means that 1,105,730 adults had some hearing loss; of those individuals, 67,590 had their hearing loss corrected by the use of a hearing aid.

With over half a million adult Canadians reporting some form of vision loss and over a million reporting some form of hearing loss, it is not difficult to imagine that there were a fair number of individuals who had *both* vision and hearing loss. According to the PALS, about 7% of adults with disabilities fell into this category of a combined hearing/seeing disability, which translates into 249,710 individuals.[5]

If we focus on the population with a very severe or total loss of both senses, the number is much smaller – although still larger than was previously detected using statistics

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4 While both the PALS and CCHS inquire about one's ability to hear and see under specific circumstances, the PALS provides more circumstances as examples, which is likely to increase the overall number of people reporting some degree of loss – in effect, PALS provides more chances to be "screened in." As well, the PALS provides options for degree of difficulty (from none, some, a lot, and completely unable), whereas the CCHS requires individuals to choose whether they can perform the activity, or not. It does not permit individuals to choose an option that is somewhere in between. With more options from which to choose, the PALS permits greater precision in separating out and identifying those individuals with extreme/total loss from those with only some loss.

5 This number is even larger than the combined total generated with the CCHS data, and certainly many times higher than numbers generated through registry or program statistics. Again, the differences are likely a function of differences in the screening questions, with more categories being listed in the PALS and more choices available for degree of difficulty experienced.

from registries and program data. According to the 2001 PALS, individuals who have great difficulty or a complete inability to see and hear number 12,050 adults in Canada, or less than 1% of all adults with disabilities.[6]

Due to sample size restrictions, we can only provide basic age breakdowns on this population. The vast majority – about 81% – are seniors (aged 65 and older).[7] The CNSDB study included a much lower percentage of seniors (about 45% were aged 61+), although there were wide variations by geographic location. In fact, the authors of the CNSDB study believe they are unable to provide an accurate estimate of the number of seniors who are deaf/blind. Age distribution data provided by the PALS seems to support that belief.

If we examine the larger population – that is, those with at least some degree of vision and hearing loss, rather than a severe/total loss of both senses – about 60% are seniors. This suggests that "opening up" the definition to include those with less severe loss captures a slightly younger population (although, still older than what appears in registry/program statistics).[8]

Unfortunately, due to sample size restrictions, we must examine this larger group – those with some seeing/hearing disability – in order to provide more profile details.[9] Using the smaller sample of those with severe/complete loss of both senses,

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6 In order to be included in this group, the individual had to report having great difficulty or total inability with *every* hearing task listed, even with the use of a hearing aid, *and* great difficulty or total inability with *every* seeing task listed for "close vision" and/or "distant vision," even with the use of glasses/contacts. With respect to hearing loss, if, for example, an individual: (a) had a great deal of difficulty/total inability to hear what was being said in a conversation with at least three other people; *and* (b) had a great deal of difficulty/total inability to hear what was being said in a telephone conversation; *but* (c) had "only some" difficulty hearing what was being said in a conversation with one other person, the individual *would not* be included in this group. This measure captures a very select population of people who have very serious or total loss of both senses.

7 This represents 9,810* seniors with severe/total loss of seeing and hearing. Since this is the age group most likely to be missed by population estimates based on registry and program statistics, it is no wonder that there are variations between numbers obtained from registry/program estimates and those from survey sampling techniques used in the PALS and the CCHS. (* Use with caution due to small sample size.)

8 Note that this larger population includes those with severe/total loss of both senses, those with severe/total loss of one sense but only some loss of the other, and those with only some loss of both senses.

9 The sample size for the smaller, more severely affected group does not permit more detailed analysis.

one would expect even more extreme results. Despite this, however, we can see some of the unique challenges this group must face, even among those less severely affected.

Requirements for Aids/Devices and Unmet Need:

Those with some degree of both vision and hearing loss were much more likely than all persons with disabilities to require some type of aid or device: nearly 97% of those with a combined hearing/seeing disability required aids/devices, compared with 57% of all adults with disabilities. Having a combined hearing/seeing disability also led to a greater likelihood of having some type of unmet need, either totally or partially unmet: 43% of those with combined hearing/seeing disabilities had an unmet need for aids/devices, compared with 33% of all persons with disabilities.

Requirements for Supports with Daily Activities:

Those with some degree of both vision and hearing loss were more likely than all persons with disabilities to require supports with daily activities (85% compared with 70%).[10] Among those who required help with daily activities, they were also more likely to have an unmet need for this kind of support (41% compared with 33%).

It is reasonable to assume that requirements for aids/devices and for support with daily activities would rise among those who have a more severe or complete loss of both senses. Many of the aids/devices typically required by individuals with a vision or hearing disability tend to depend on having the other sense available (i.e., aids for those with hearing loss are often visual in nature, and aids for those with vision loss often rely on hearing). The more severe the loss of both senses, the more complex it must be to locate a suitable aid/device.

Furthermore, it is clear that many individuals employ multiple aids/devices and strategies to deal with a loss of either sense. It is likely that a loss of both senses would increase the reliance on multiple strategies. In addition to aids/devices, individuals in this group also rely on the use of sign language and lip/speech reading. Among those with some form of hearing loss in general (i.e., any degree of hearing loss, regardless of vision loss), nearly

[10] Daily activities listed in PALS were: heavy housework; everyday housework; getting to appointments; meal preparation; personal finances; child care (asked only of those with children under age 15 living with them); personal care; specialized nursing/medical treatment; and help moving about the house.

31% reported the use of sign language (ASL or LSQ)[11] and 76% reported using lip/speech reading.[12]

It is quite likely that individuals with a *combination* of seeing *and* hearing disabilities, like most others with some degree of hearing loss, used multiple strategies for communications. Among those with some degree of combined hearing and vision loss, nearly 38% used sign language and nearly 82% used lip/speech reading. It seems that, despite having some vision loss, these individuals were actually more likely to employ sign language and lip/speech reading than did those with some form of hearing loss in general (regardless of vision loss). In certain circumstances, individuals are relying on the vision they have left. Clearly, the importance of using multiple strategies for communication is complex.

And as was noted in DRIP 17 earlier this year, "lack of information about how and where to obtain the aid/device" was often cited as a reason for unmet needs. (This was in addition to the most commonly cited reason for an unmet need – that being the cost of the aid/device.) Further investigation is required to determine the nature of the barriers that lead to unmet needs among this group with combined hearing/seeing disabilities. As the CNSDB study noted, we need much greater awareness about these unique barriers and the communications difficulties for those most in need.

Employment:

While the majority of those who have a hearing/seeing disability are seniors, including both the smaller group with severe/total loss of hearing/seeing as well as the larger group with some degree of loss of both modalities, the impact is evident even among those of working age. Among non-seniors, 65% of those with some degree of both hearing/seeing loss are considered to be "not in the labour force" (NILF), compared with 51% of all working-age adults with disabilities. Similarly, only 30% of those with some degree of combined hearing/seeing loss were employed, compared with 44% among all working-age adults with disabilities.[13]

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[11] The most commonly used sign languages in Canada are American Sign Language (ASL) and Langue des Sourds du Québec (LSQ), however, they are not the only types of sign language used. In Nunavut, for example, Inuit Sign Language (ISL) is often used. Since the PALS was not conducted in any of the territories, the statistics provided here do not include those individuals.

[12] This translates into an estimated 27,570 individuals communicating using ASL/LSQ and 198,590 using lip/speech reading. Again, these estimates are probably lower than would actually be found in the population. Some researchers believe that even detailed surveys like the PALS fail to adequately pick up all individuals with hearing problems. As well, on the PALS, individuals who were able to hear with the help of a hearing aid were not asked questions regarding sign language and lip reading. (This affects an estimated 67,590 individuals.)

[13] If the sample size were big enough to examine employment statistics for only those with severe/total loss of hearing/seeing, we would likely find a higher proportion of NILF and a lower proportion of employed than is evident when we examine the larger group. In other words, the data indicate that deaf/blindness poses an increased barrier to employment, even above that experienced by the general population of persons with disabilities. (Note: individuals in these employment statistics were either employed, NILF, or unemployed. Unemployed figures are not presented here.)

Mobility, Agility and Pain Combinations

Mobility, agility, and pain are the three most prevalent types of disabilities detected in the PALS, and they rarely occur alone. Only about 4% of those with a mobility disability have *only* that disability.[14] Of those with a mobility disability, about 14% also have an agility disability (but not pain), and another 67% have an agility *and* a pain-related disability. Of those with a pain-related disability, 69% also have a mobility *and* an agility disability. Mobility, agility, and pain, as a disability combination, accounted for 48% of all adults with disabilities in the 2001 PALS. This represents 1,644,550 individuals.

Requirements for Aids/Devices and Unmet Need:

Those with a mobility and agility disability (but not pain) were more likely than all persons with disabilities to require some type of aid or device: nearly 71% required aids/devices, compared with 57% of all adults with disabilities. Among those with a combined mobility/agility/pain disability, the requirement for aids/devices was also 71%.[15] While the addition of a pain-related disability to a combined mobility/agility disability did not increase the requirement for aids/devices, it did increase the likelihood of having an unmet need. Among those requiring some type of aid/device, 19% of those with a combined mobility/agility (but not pain) disability had an unmet need, whereas 39% of those with a mobility/agility/pain disability had an unmet need.

Requirements for Supports with Daily Activities:

Among those with a combined mobility/agility (but not pain) disability, 80% had a requirement for supports with daily activities. The addition of a pain-related disability increased the likelihood of this requirement to 86%. Among those who required supports with daily activities, 28% of those with a combined mobility/agility (but not pain) disability had an unmet need, while 38% of those with a mobility/agility/pain disability had an unmet need for supports.

Employment Rates by Disability Type and Combinations

CCSD's Disability Research Program has received a variety of information requests regarding employment rates by disability type. Table 1 presents employment rates for working-age individuals (that is, those aged 15 to 64) with each type of disability.[16]

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[14] About 2% of those with an agility disability have *only* an agility disability, and about 6% of those with a pain-related disability have *only* a pain disability.

[15] Note: these figures do not include requirements for medication.

[16] That is the percentage of working-age adults with each type of disability who were employed. The balance were unemployed and NILF. Given the high rate of multiple disabilities, note that employment rates listed for persons with each disability type include persons with that particular disability type, some of whom may also have had one or more other types of disabilities. The only qualifier to this is for people with the combination of mobility/agility disability (but not pain). Those individuals had both mobility and agility disabilities, and while they may have also had other types of disabilities, they did not have a pain-related disability.

More investigation is required to help us better understand differences in employment opportunities by disability type. It appears that the presence of multiple types of disability tends to decrease employment possibilities.

It is curious, however, that individuals with mobility/agility/pain disabilities had a slightly higher rate of employment (33.2%) than those with mobility/agility but not pain (29.6%). One would expect the addition of a pain-related disability to decrease an individual's employment opportunities, beyond that of individuals with combined mobility/agility disabilities. A person's age and their age at the onset of the disability may be important factors in helping us understand these differences.

Table 1 **Working-age Persons with Specific Disability Types and Combinations Who Were Employed**

Disability Type	% Employed*
Mobility	35.6%
Agility	36.7%
Pain	41.9%
Hearing**	45.7%
Seeing**	31.4%
Speaking	27.4%
Learning	30.6%
Developmental	28.1%***
Memory	23.5%
Psychological	29.2%
Unknown	52.5%
Hearing/Seeing	29.7%
Mobility/Agility	29.6%
Mobility/Agility/Pain	33.2%

Notes: There is a high degree of overlap of disability types. The employment rates listed include all those with that disability type and a variety of others.

* This is the percentage "employed". The balance were either "not in the labour force" (NILF) or officially "unemployed".

** For those with a severe or total loss of hearing, the employment rate was much lower (32%). Similarly, the employment rate was also lower for those with a severe or total loss of sight (23.2%).

*** Use with caution due to small sample size.

Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's PALS, 2001.